Operation Iraqi Freedom (OIF) Acquisition Lessons Learned: Munitions

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Agenda

- **Missiles**
- **Ammunition**
- **Logistics**
- **People**

TOW

- **Highly reliable, long-range firepower for light infantry and mechanized forces.**
- **Effectively used TOW 2A, 2B and bunker buster variants to defeat enemy fortifications, armored vehicles of all types, and MOUT strongholds.**
- **Line-of-Sight capability and ITAS 2d GEN FLIR provided significant tactical advantage:**
  - **Shot through doorways and windows, i.e., precision engagements with almost no collateral damage.**
  - **Long-range RSTA enabled forces to see first, understand first, and act first.**

Javelin

- **Javelin became all-purpose weapon of choice to engage:**
  - **Buildings, bunkers**
  - **Mortar positions**
  - **Technicals and heavy armor**
- **Fire and forget enabled gunner to destroy numerous targets in one engagement.**
- **Soft launch mode is highly effective in urban fight.**
- **Highly reliable, only external parts required repair or replacement.**

Hellfire/Longbow

- **Helicopter attacks resulted in destruction of significant numbers of:**
  - **Tanks**
  - **Infantry Fighting Vehicles**
  - **Field/Air Defense Artillery**
  - **Missile Launchers**
- **Smokeless missiles enabled engagement while minimizing detection by the enemy.**
- **With lock on before launch, missiles hit the target no matter how close the range.**
- **Hellfire a winner with air crews.**

"The K&F [Hellfire] missiles were awesome

-- Pilot Quote

Precision Fires Rocket & Missile Systems

Systems Used

Launchers:

- **HIMARS ACTD**
- **M270A1**
- **M270**

Rockets & Missiles:

- **Quick Reaction Unitary**
- **Block I**
- **Block IA**
- **M26 Rockets**

Performance

- **HIMARS – First use in combat; Exceptional performance.**
- **M270A1 – Surpassed operational requirements, Exceeded 12 month predicted OPTEMPO in 4 weeks.**
- **ATACMS – Performed as advertised.**
- **M270 – Performed well; Some logistics challenges due to age.**

Feedback

“The only Al-qaeda Fighter we Captured was Because of a CLU.”

BN Cdr, 101st AASLT

“SGT Adamec stood at the crossroads in Northern Iraq waiting for oncoming tanks with a Javelin antitank weapon in his hands.

With him were a few other special forces soldiers. It was no contest.

When the shooting stopped, the Iraqis had lost 8 tanks, sev

trucks and armored personnel carriers, and 100 vehi

“A 10th SFG soldier may have set a record in Iraq by knocking out three T-55 tanks with a Javelin anit-tank missile.”

MG Geoffrey Lambert, Special Forces Comm

“The 101st’s helicopter attacks after 23 March destroyed 866 targets, including tanks, infantry fighting vehicles, artillery, air defense artillery (ADA) and missile launchers. In addition, the 3ID’s attack helicopter battalion destroyed 25 tanks, 27 infantry fighting vehicles, 6 artillery pieces, and 52 ADA pieces as it provided aviation close fires during the march to Bag

MG Petreaus, 101st Division C

Artillery

- **SADARM performed better than expected.**
- **SADARM was the preferred precision munition for DS Battalions and their maneuver commanders.**
- **Units found they could fire substantially less SADARM rounds than the doctrinal 24 rounds for area targets. TTPs were four rounds in effect against a point target.**
- **HE (High Explosive) projectiles were also very effective.**
- **HE more effective against**

Mortars

- **60mm/81mm**
  - **Provides maneuver capability**
- **120mm**
  - **Increased lethality and versatility**
  - **Extended range required for MOUT**

- **Overall systems reliable, responsive, and lethal.**
- **Need for precision fires to minimize collateral damage identified.**

"Use of mortars in the close fight allowed the FA to focus on shaping and prepping the battlefield. Average engagement was less than 300 meters."
(1st MAR DIV AAR, 3rd IN DIV, 101st ABN DIV)

Small Arms

- **9mm**
  - **Insufficient stopping power**
  - **Mod required for limited visibility operations**

9mm

- **M4**
  - **Soldiers satisfied with weapon**
  - **Consensus: every rifleman wants the M4**

M4

- **XM107**
  - **Light fighters weapon of choice for urban fight**
  - **Engage targets out to 1,400 meters**

XM107

Lessons Learned

- **Issue: Post Conflict Support**
- **Discussion:**
  - **Every recent major conflict has required the use of Non Lethal Capability Sets (NLCS) when dealing with civilian/non combatant populations.**
  - **These field requirements have been supported through an existing development program contract.**
  - **Recent cancellation of funding for this program will result in an inability to provide this important asset in the future.**
- **Recommendations:**
  - **Approve CDD currently in DA.**
  - **Re-establish funding for the NLCS program.**

Feedback

“The M4 with PEQ and PAQ provided overmatch over our threat equipped with AK47s and RPGs”
Brigade Commander

“My spotter positively identified a target at 1400 Meters carrying an RPG on a water tower. I engaged the target. The top half of the torso fell Forward out of the tower and the lower portion Remained in the tower.”
325th PIR Sniper

“There is no way anyone using a conventional system could have noticed this guy until he got a round off. Using the advanced optics and zoom capabilities, the gunner was able to acquire and engage the target from over 300 meters with sniper-like precision.”
LTC Harrison, 168th MP Battalion Commander

Missile Stockpile Reliability Lessons Learned

- **Significant losses (~10%) will occur as a result of transportation, handling, and environmental conditions:**
  - **Must acquire cross country forklifts**
  - **Must provide better training for forklift drivers**
- **Missiles damaged in retrograde due to improper or missing packaging:**
  - **Must provide for proper packaging for retrograde**

JAVELIN

ATACMS

More Missile Stockpile Reliability Lessons Learned

- **Extreme environments (heat, humi**

  and sand) will adversely affect miss
  shelf life:
  - **Must have active stockpile reliability progra**
  - **Must have adequate environmental protection at tactical storage facilities**
  - **Must design containers to survive extreme environments**

HELLFIRE

- **To account for variation in handling and exposure severity, missiles must be:**
  - **Tracked by serial number**
  - **Monitored with usage / exposure recorded**

Missile Support Equipment Condition

- **Extreme environments (particularly heat and sand) adversely affects missile support equipment:**
  - **Air and ground launchers**
  - **Radars**
- **All retrograded equipment requires inspection.**
- **Integrated maintenance / repair to address environmental damage and routine depot maintenance required for:**
  - **PATRIOT**
  - **Avenger**
  - **MLRS**
  - **Hellfire Launchers**

Reset Well Underway

Lessons Learned

- **Issue: Strategic Asset Visibility**
- **Discussion:**
  - **Conflicting information on ammunition supply levels in theater.**
  - **Supply personnel unable to identify contents of ISO shipping containers using RF tags (no readers/broken readers). This necessitated opening each container and conducting a manual inventory.**
  - **Opened containers require significant additional effort (cleaning/inspection/testing/etc.) when returning unused items to Army stockpiles.**
- **Recommendations:**
  - **Create an automated tracking system at item package level to monitor and report the arrival and issuance of Ammunition in the theater ASP (i.e., FedEx like barcode system).**
  - **Field readers directly to Army units to simplify the inventory and distribution of ammunition.**

“Our recent combat operations reinforce the requirements for units and echelons that are flexible and tailorable. Can we balance our force structure and develop increased modularity so as to enhance our critical role in effective joint contingency operations while maintaining our campaign qualities?”

General Peter J. Schoomaker
35TH CHIEF OF STAFF OF THE ARMY
Arrival Message – August 1, 2003

Force tailoring is the process of determining the right mix and sequence of units for a mission.

Army Prepositioned Stocks (APS)

OIF

- APS-2 (EUROPE)
- APS-1(CONUS)
- APS-4 (Pacific)
- APS-5 (SWA)
- APS-3 (Afloat)

2006

- APS CONUS
- APS-EUR
- APS-SWA
- APS-NEA

- ARF-I
- ARF-II
- ARF-III

ARF = Army Regional Flotilla

Airmen

Soldiers

Marines

All
Performed
Magnificently!

Contractors

Sailors

Civilans

Facing the Future...
Together